

Abstract Of The Disclosure

Continuous polymeric extrusion nucleation systems and methods useful for making polymeric microcellular foamed materials, including crystalline and semi-crystalline polymeric microcellular materials, are provided. Pressure drop rate is an important feature in some embodiments, and the invention provides systems for controlling these and other parameters. One aspect involves a multiple-pathway nucleator that is separated from a shaping die by a residence chamber. Another aspect involves a die for making advantageously thick articles, including a multiple-pathway nucleation section. Microcellular material can be continuously extruded onto wire, resulting in a very thin, essentially closed-cell microcellular insulating coating secured to a wire. Other very thin microcellular products can be fabricated as well.

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